

## **Abstract**

A polarizer to improve contrast for LCD from down view angle is produced by laminating a triacetate cellulose (TAC) sheet on each side of a polyvinyl alcohol (PVA) sheet and further on the toppest triacetate cellulose (TAC) sheet applying  
5 a surface-treatment layer that is a protective film formed by black dye mixture to inhibit dark-state light leakage and improve the contrast for LCD from down view angle.